

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK JOSEPHUS LUCIEN MARIA VAN DOMMELEN
and PAULUS ALBERTUS MARIA VERMEULEN

Appeal No. 2004-0699
Application 09/873,564

ON BRIEF

MAILED

MAR 15 2004

**PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES**

Before PAK, WARREN, and OWENS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from the final rejection of claims 1 and 3, which are all of the claims pending in the application.

THE INVENTION

The appellants claim a high-pressure discharge lamp having an outer bulb which is substantially tubular in shape and is provided with a light-scattering layer. Claim 1 is illustrative:

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1. A high-pressure discharge lamp comprising a discharge vessel which is enveloped with clearance by an outer bulb provided with a lamp cap, which outer bulb is translucent, is substantially tubular in shape, and is provided with a light-scattering layer.

THE REFERENCES

Thornton	4,315,193	Feb. 9, 1982
Verschueren	5,612,585	Mar. 18, 1997

THE REJECTION

Claims 1 and 3 stand rejected under 35 U.S.C. § 103 as being unpatentable over Verschueren in view of Thornton.

OPINION

We reverse the aforementioned rejection. We need to address the sole independent claim, i.e., claim 1.

Verschueren discloses a high-pressure discharge lamp (col. 1, line 6) comprising a discharge vessel (3) which is enveloped, with clearance, by a translucent, substantially tubular outer bulb (1) having a lamp cap (2) (col. 2, lines 54-58; figure 1). Verschueren does not disclose providing the outer bulb with a light-scattering layer.

Thornton discloses a high-pressure mercury vapor lamp having an operating arc tube which emits radiation comprising very strong green and yellow emissions, strong violet emission, and short and long wavelength ultraviolet emissions (col. 1,

lines 47-48; col. 1, line 65 - col. 2, line 2). The inner surface of the outer bulb is coated with a phosphor which is responsive to the ultraviolet radiations generated by the operating arc and provides visible emissions (col. 2, lines 3-9). A light-scattering material such as silica can be coated onto the inner surface of the outer bulb prior to applying the phosphor coating so that ultraviolet radiations which have escaped absorption by the phosphor layer are scattered back to the phosphor by the light-scattering layer, thereby energizing the phosphor (col. 4, lines 18-25).

The examiner argues that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a light-scattering layer on the outer bulb as taught by Thornton in the discharge lamp assembly of Verschueren for the purpose of improving color rendition of the discharge lamp (cited by Thornton column 4, lines 26-62)" (answer, pages 3-4).

As pointed out above, Thornton's light-scattering layer improves color rendition by scattering light back to a phosphor layer. Verschueren's outer bulb, however, does not have a phosphor layer. The examiner has not explained how 1) Thornton

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would have indicated to one of ordinary skill in the art that Thornton's light-scattering layer could improve the color rendition of Verschueren's discharge lamp without Verschueren's outer bulb having a phosphor layer, or 2) the applied references would have fairly suggested, to one of ordinary skill in the art, applying both of Thornton's light-scattering layer and phosphor layer to Verschueren's outer bulb.

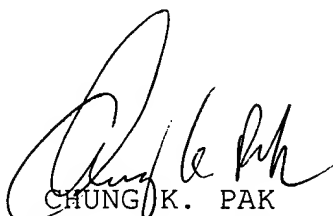
The examiner, therefore, has not carried the burden of establishing a *prima facie* case of obviousness of the appellants' claimed invention.

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DECISION

The rejection of claims 1 and 3 under 35 U.S.C. § 103 over
Verschueren in view of Thornton is reversed.

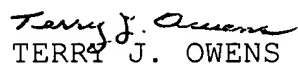
REVERSED



CHUNG K. PAK
Administrative Patent Judge



CHARLES F. WARREN
Administrative Patent Judge



TERRY J. OWENS
Administrative Patent Judge

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Philips Intellectual Property & Standards
P.O. Box 3001
Briarcliff Manor, NY 10510